

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE
AT KNOXVILLE**

SNMP RESEARCH, INC. & SNMP)	
RESEARCH INTERNATIONAL, INC.,)	Case No. 3:20-cv-451
)	
<i>Plaintiffs,</i>)	Judge Atchley
)	
v.)	Magistrate Judge Poplin
)	
EXTREME NETWORKS, INC.,)	
)	
<i>Defendant.</i>)	

MEMORANDUM OPINION AND ORDER

Before the Court is Plaintiffs’ Motion to Exclude Testimony of Phillip Greenspun [Doc. 461]. For reasons that follow, the Motion [Doc. 461] will be **GRANTED IN PART** as to Greenspun’s replacement cost opinions, which will be excluded for the purpose of calculating any disgorgement award. The remainder of Plaintiffs’ Motion [Doc. 461] will be **DENIED**.

I. FACTUAL BACKGROUND AND PROCEDURAL POSTURE

Phillip Greenspun is Extreme’s technical expert and has submitted multiple reports in this case. Plaintiffs object to two categories of opinions by Mr. Greenspun: (1) his opinions on copyright law issues, and (2) his opinions on the monetary value that should be attributed to Plaintiffs’ copyrighted software code in the accused Extreme products for damages purposes. [Doc. 552 at 6]. The Court granted summary judgment to Plaintiffs on the prima facie elements of their copyright claim on June 9, 2025. [Doc. 607]. Accordingly, Greenspun’s opinions regarding the Copyright Office’s registration requirements and the originality of Plaintiffs’ software are no longer relevant.

The Court ordered the parties to confer regarding this issue and state their position on what aspects of the Greenspun *Daubert* motion remain in dispute following the Court’s summary

judgment opinion. [Doc. 640]. In their Joint Status Report [Doc. 649], Extreme withdraws the testimony of Dr. Greenspun relating to copyright liability issues, other than copyright damages. The parties agree that § III of Plaintiffs' opening *Daubert* brief is moot. [*Id.*]. The parties could not agree as to whether subsections IV.C (relating to replacement costs) and IV.D ("zero value" opinion) have been effectively resolved by prior Court orders. [*Id.*].¹

Accordingly, the Court turns to Plaintiffs' challenge to Greenspun's disgorgement opinions. Plaintiffs challenge five specific opinions:

1. Greenspun opines that the (a) the estimated value of Plaintiff's software to the switches running the EXOS operating systems cannot be more than 50% of the overall value of the switch, and (b) for the switches running SLX-OS and NOS operating systems, the software cannot be more than 25% of the overall value of the switch;
2. Greenspun opines that the use of the infringing SNMP software is not a significant activity for the Extreme products when measured based on either the amount of processing done or the number of packets sent;
3. Greenspun opines as to the hypothetical replacement cost Extreme might incur if it attempted to replicate Plaintiffs' software;
4. Greenspun opines that the value of Plaintiffs' copyright works is "zero" because users of Extreme switches do not care what implementation of the SNMP protocol is used in Extreme's switches; and

¹ While the Status Report does not elaborate on the disagreement, the parties reference Judge Poplin's rulings on the motions to exclude certain testimony of Quentin Mimms and Mahdi Eslamimehr. [Docs. 601 & 613]. The Court has reviewed the cited portions of Judge Poplin's orders and finds that while they touch on very similar issues (non-infringing alternatives and the "zero value" opinion), Judge Poplin's orders do not relate directly to Greenspun's report. Accordingly, the Court will address all of Greenspun's challenged opinions that do not relate to copyrightability.

5. Greenspun offers a valuation opinion based on a “line-counting” analysis, comparing the number of lines of code attributable to Plaintiffs with the total number of lines of code in the product.

[Doc. 552].

II. STANDARD OF REVIEW FOR DAUBERT MOTIONS

Before a witness can give an expert opinion, their testimony must meet the requirements of Federal Rule of Evidence 702:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. The Court acts as a “gatekeeper” of evidence that fails to meet this standard. *Daubert v. Merrill Dow Pharms., Inc.*, 509 U.S. 579 (1993); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). Yet the Rule 702 inquiry is “a flexible one,” *Daubert*, 509 U.S. at 594, and “rejection of expert testimony is the exception, rather than the rule,” *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 530 (6th Cir. 2008). “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Daubert*, 509 U.S. at 596; *see also United States v. 14.38 Acres of Land*, 80 F.3d 1074, 1078 (5th Cir. 1996) (“[T]he trial Court’s role as a gatekeeper is not intended to serve as a replacement for the adversary system.”).

As the Sixth Circuit has explained, a proposed expert’s opinion is admissible under Rule 702 if it satisfies three requirements: (1) the witness is qualified by knowledge, skill, experience,

training, or education; (2) the testimony is relevant; and (3) the testimony is reliable. *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 529. Testimony is relevant if it relates to a fact at issue and helps the jury determine that fact. Fed. R. Evid. 401; *Navarro v. Proctor & Gamble Co.*, 501 F. Supp. 3d 482, 489 (S.D. Ohio 2020). Testimony is reliable if it is based on “something ‘more than subjective belief or unsupported speculation.’” *Id.* (citing *Daubert*, 509 U.S. at 590).

III. ANALYSIS

a. Estimated Value of Plaintiffs’ Software Relative to Value of Extreme Switches

Greenspun opines that the value of Plaintiffs’ code must be reduced according to the relative value of software to hardware in Extreme’s switches. As to switches running the EXOS operating system, Greenspun opines that the estimated value of Plaintiffs’ software “cannot be more than 50% of the overall value of the switch.” [Doc. 491-3 at ¶ 345]. According to Greenspun, this is because “[m]ost of the switches that run the EXOS network operating system are access and edge switches that do not require high-performance hardware like the data center products and they rely on various software features,” described elsewhere in his report. [*Id.*]. He says this is a conservative estimate that is “generous” to Plaintiffs, because “[n]early all of the work of the switch is done by hardware and . . . a switch that doesn’t have the required hardware is of no value to any customer.” [*Id.* ¶ 345 n.180].

Greenspun next explains that “[m]ost of the switches that run the SLX-OS and NOS network operating systems are very high-performance data center products that use cutting-edge and expensive hardware.” [*Id.* at ¶ 346]. So for those switches, he estimates that the value of Plaintiffs’ software “cannot be more than 25% of the overall value of the switch because the

hardware in these switches adds significantly more value to the switch than the hardware for the EXOS switches.” *[Id.]*.

Plaintiffs seek exclusion of Greenspun’s opinion that the disgorgement available should be reduced by either 50% or 25%, based on his hardware/software allocation. [Doc. 552 at 22]. According to Plaintiff, these percentages were “plucked out of thin air,” with no attempt to provide underlying support or justification. *[Id.]*. They argue that Greenspun’s percentage reductions are not supported by any scientific method, testing, or technical research, and he does not back up the percentages with any rationale or citation to industry standard. *[Id.]*.

According to Extreme, Greenspun “extensively describes the importance of hardware before giving Plaintiffs the benefit of an inflated relative valuation of Plaintiff’s software.” [Doc. 558 at 24]. *[Id.]* at 24]. Extreme therefore contends that “his report makes clear” that “the valuation is a product of [his] extensive technical expertise and review of Extreme’s products.” *[Id.]* at 24]. Extreme points to caselaw suggesting that an expert can review materials in a case and apply his experience to those materials. *[Id.]* (citing *Huntzinger v. Coyle*, No. 17-cv-184, 2022 WL 95280 (E.D. Ky. Jan. 10, 2022) (discussing expert’s excessive force opinion)).

The Court has reviewed the portions of Greenspun’s report that Extreme contends form the basis for his relative valuation figures. Indeed, an entire section of his report is devoted to the opinion that “Extreme Switches Have Significant Hardware Elements that Are Not Attributable to Plaintiff’s SNMP Agent.” [Doc. 491-3 at 96]. He discusses the hardware components at length, concluding that the Extreme switches at issue have “hardware elements that are significant for the functionality of those switches.” *[Id.]* at ¶ 251]. His next section discusses his opinion that the network operating system software has significant features that are not attributable to Plaintiff’s SNMP Agent. *[Id.]* at 105]. The next section of his report attempts to quantify the value attributable

to Plaintiff's copyrighted works in the at-issue Extreme switches, presumably based on the analysis in the preceding sections. [*Id.* at 126].

For an expert opinion to be admissible, the expert must connect the dots between the evidence on which he relies and the conclusion he ultimately reaches. "Export reports must include 'how' and 'why' the expert reached a particular result, not merely the expert's conclusory opinions." *R.C. Olmstead, Inc. v. CU Interface, LLC*, 606 F.3d 262, 271 (6th Cir. 2010) (quoting *Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 742 n. 6 (7th Cir. 1998)). Rule 702 likewise requires expert opinion testimony to be "based on sufficient facts or data" and be "the product of reliable principles and methods." Fed. R. Evid. 702.

Plaintiff's motion presents a somewhat close call as to Greenspun's hardware/software allocation. Greenspun does not explain how he got the specific percentages he uses, relying generally on his analysis of the Extreme products. Yet if industry standards require clearer methodology for such an allocation, Plaintiffs have not pointed to it. While the basis for his hardware/software allocation could be clearer, the Court cannot say that Greenspun's estimates have no foundation in his report. *McClellan v. Ontario, LTD.*, 224 F.3d 797, 801 (6th Cir.2000) ("[M]ere weakness in the factual basis of an expert witness' opinion bear[s] on the weight of the evidence rather than its admissibility."). The structure of the report makes clear that his hardware/software allocation is the result of his analysis of the hardware components of the switches.

Mindful of the Sixth Circuit's caution that "rejection of expert testimony is the exception, rather than the rule," *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 530 (6th Cir. 2008), Plaintiff's Motion will be **DENIED** in this regard.

b. Product Testing Opinion

Next, Plaintiffs challenge Greenspun's opinion that "management via SNMP is not a significant activity for a switch when measured by the amount of processing that is done or the number of packets that are sent." [Doc. 491-3 at ¶ 312]. Greenspun relies on a test conducted with an Extreme 5520 switch. [*Id.* at ¶ 309]. The test was apparently conducted by Zdenek Pala, a Senior Product Manager at Extreme Networks, at Greenspun's request. [*Id.*]. Mr. Pala "loaded the switch with what seemed to him to be a typical load, processing approximately 5 million packets per minute." [*Id.* at ¶ 310]. At Greenspun's request, the switch was monitored with "an Extreme 'Site Engine' tool." [*Id.*]. According to Greenspun, the testing showed that the SNMP agent "consumed just 0.2 to 0.4% of the CPU's capacity." [*Id.* at ¶ 311]. "The management activity was 0.00062 percent of the total network activity." [*Id.* at 310].

Plaintiffs take issue with Greenspun's opinion for several reasons. First, they contend that in his deposition, he suggested he might rely on this opinion to support a damages apportionment at trial. [Doc. 552 at 23]. Since he did not disclose his opinion in those terms in his report, Plaintiffs argue it must be excluded. Second, Plaintiffs note that Greenspun did not point to any support for the premise that either CPU utilization or network traffic bandwidth are valid metrics for apportioning copyright disgorgement. [*Id.* at 24]. Third, they argue that Greenspun's conclusions were drawn from a single test of a single Extreme product, and cannot be extrapolated to the many other products at issue in this litigation. [*Id.*]. Finally, Plaintiffs argue that the testing data on which he relied is "compromised" because he did not perform it himself, but depended on data compiled by an employee of Extreme.

Extreme responds that Greenspun's deposition makes clear that the CPU testing was just one way of considering the relative value of Plaintiffs' software, in addition to line-counting and

analysis of marketing materials. [Doc. 558 at 25]. Greenspun testified that the CPU testing was not an input into his line-counting analysis, but a cross-check: “[I]f an inconsistency had arisen, I would have flagged it. But, in fact, the percentage of CPU time . . . isn’t that different from the percentage of code.” [Doc. 489-9 at 50]. Extreme notes that Plaintiffs do not argue that product testing is unhelpful in measuring the relative value of software, and their own technical analysis performed a similar analysis. [Doc. 558 at 25].

Extreme also defends Greenspun’s reliance on data gathered by Mr. Pala, an Extreme employee. Extreme shows that experts are not required to perform tests themselves, and Greenspun personally instructed Mr. Pala as to what data he wanted gathered and the methods to use. [*Id.* at 25-26]. Extreme contends Greenspun did in fact verify the testing conducted.

These purported deficiencies go to the weight of Greenspun’s opinions, not their reliability. Greenspun’s deposition testimony makes clear what was implicit in his report—that the testing is a way of validating his line-counting analysis. And while Plaintiffs say that Greenspun failed to justify his premise that CPU utilization and network bandwidth are valid metrics for apportioning copyright disgorgement, they do not actually argue that these metrics are an invalid way to assess the contribution of specific software to a larger product. Greenspun does not purport to be calculating a disgorgement figure, but offering technical apportionment opinions to inform that calculation.

Nor is the testing of a single unit particularly problematic in this instance. If the testing related to, e.g., a products liability issue, a sample size of one might indeed be fatal to admissibility. But Plaintiffs offer no reason to believe running multiple tests would have produced different results. Moreover, Greenspun’s reliance on the CPU testing is supportive, not central to his conclusions. *See Buck v. Ford Motor Co.*, 810 F. Supp. 2d 815, 855 (N.D. Ohio 2011) (rejecting

reliability challenge to expert opinion based in part on an allegedly defective study where study did “not play a major role” in expert’s opinion). In short, the Court does not see his reliance on a supplemental data point as unreliable or otherwise problematic. Experts ideally validate their opinions with multiple metrics whenever possible and appropriate.

Finally, Greenspun’s reliance on an Extreme employee to obtain the relevant data does not render it unreliable. The record does not suggest that Greenspun avoided conducting “his own independent analysis” in reliance on “what an interested party [told] him.” *See Orthoflex, Inc. v. ThermoTek, Inc.*, 986 F. Supp. 2d 776, 798 (N.D. Tex. 2013). While Mr. Pala does seem to have made some choices about the testing, e.g., deciding what “seemed to him to be a typical load,” Greenspun directed aspects of the testing. Plaintiffs’ argument that Greenspun did not perform any independent verification because he failed to request further documentary evidence is wholly unpersuasive in view of Greenspun’s testimony. He stated that he “already [had] documentary evidence to back up pretty much everything that Mr. Pala told me except about the translator pricing,” which is not at issue here. [Doc. 489-9 at 36]. He explained that he could “see [Mr. Pala’s] screen, and so I could see what he was doing,” and that there “was really no way” for him to “mislead” Greenspun. [*Id.*]. If Plaintiffs seek to challenge Greenspun’s oversight of Mr. Pala’s work, they may do so, but the data does not appear to the Court to have been so dependent on Mr. Pala’s involvement that it undercuts Greenspun’s modest reliance.

For the same reason, it is not clear to the Court that Greenspun relied on information “provided” by a non-disclosed fact witness, as opposed to directed Mr. Pala to obtain the data he wanted, while Greenspun monitored the data collection. Regardless, Plaintiffs’ argument on this score is cursory.

c. Replacement Cost Opinion

Plaintiffs next seek exclusion of (i) Greenspun’s opinions about a hypothetical cost that Extreme might incur if it attempted to replicate Plaintiffs’ copyrighted software; and (ii) Greenspun’s assertion that three programmers were able to replace Plaintiff’s agent with NET-SNMP in 8 months. [Doc. 552 at 25]. Extreme contends that Greenspun’s replacement cost opinion does not sidestep the apportionment analysis in favor of a non-infringing alternatives analysis, as multiple courts have ruled is improper. Rather, according to Extreme, Greenspun opines as to the cost of replicating Plaintiffs’ software “as one of a number of methods of considering the value of that software.” [Doc. 558 at 26-27].

“A copyright owner may recover actual damages and ‘any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages.’” *Premier Dealer Servs., Inc. v. Allegiance Admins., LLC*, 93 F.4th 985, 994 (6th Cir. 2024). “Actual damages can . . . be thought of as the anticipated amount that the copyright holder would have received had the infringer not infringed.” *Ecimos, LLC v. Carrier Corporation*, 971 F.3d 616, 632 (6th Cir. 2020).

Disgorgement, on the other hand, entails burden-shifting.² *Premier*, 93 F.4th at 994. The copyright owner must first present evidence of the infringer’s gross revenue. *Id.* Though the plaintiff “does not have to demonstrate strict causation,” the “gross-revenue calculation must bear a ‘reasonable relationship’ or ‘relevance’ to the infringement.” *Id.* (citing *Balsley v. LFP, Inc.*, 691

² Throughout the caselaw on copyright damages, courts refer to types of damages in different and sometimes inconsistent ways. The *Premier* court discussed disgorgement as “lost profits,” though they were clearly speaking of the infringer’s profits, i.e. disgorgement. Other courts refer to disgorgement as “infringer’s profits.” In other cases, “actual damages” refers to both disgorgement *and* plaintiff’s actual damages suffered, serving to distinguish the remedies available in § 504(b) from the statutory damages provided by § 504(c).

F.3d 747, 769 & n.6 (6th Cir. 2012)). “The revenue figures are sufficient if they correspond to the product containing the infringing work, such as a magazine that reprints a copyrighted image.” *Id.*

If the copyright owner makes this showing, the burden then shifts to the infringer to “show what part of its gross revenues did not result from the infringement.” *Id.* It can do so by presenting proof of “deductible expenses and elements of profit attributable to factors other than the copyrighted work.” 17 U.S.C. § 504(b). This calculation is fact-intensive. A jury award on disgorgement or a disgorgement percentage will be upheld if there is “plausible evidence” to support it. *Id.* (citing *Ecimos*, 971 F.3d at 637).

As to causation, the statute places a “low burden” on the copyright owner to explain why the gross revenue number is related to the infringement. *Id.* at 995. The burden of proving causation falls to the infringer, who “must prove in the second phase of the burden-shifting framework how much of its profits stemmed from activity unrelated to the infringement.” *Id.*

Extreme contends it is entitled to present Greenspun’s opinions regarding the low cost of replacing Plaintiffs’ software. But Extreme fails to show how the cost of replicating Plaintiff’s software is relevant to the “elements of profit attributable to factors other than the copyrighted work.” *See* § 504(b).

The Federal Circuit recently considered this issue in *4DD Holdings, LLC v. United States*, 169 Fed. Cl. 164, 185 (2023). There, the Government was found liable for infringing plaintiff’s copyright in certain software. It argued that a non-infringing alternative was available and “its existence should cap [plaintiff’s] damages.” *Id.* at 184. The Federal Circuit “decline[d] to apply the non-infringing alternative analysis as a mechanical damages cap.” *Id.* at 185. The court reasoned that “the relevance of a non-infringing alternative has more force in patent law,” because “a patent’s value is found largely in the idea that nothing else like the product or process exists.”

Id. In contrast, copyrighted works only need to be original, not novel. “[B]y inserting originality instead of novelty, copyright law contemplates that many expressions of the same idea will exist.” *Id.*

The Federal Circuit concluded that “what the government seeks is a ‘name your own price tool,’ through which it can mix and match the software it wants with the price it wants. It would no longer need to pay higher prices for better software because . . . it can just engage in mass copying of its preferred software, and if the copyright owner sues for infringement, it can simply point to a cheaper, unused software and declare that price to be the limit of infringement.” *Id.* at 185.

More directly on point is *Oracle America, Inc. v. Google, Inc.*, No. C 10-03561, 2016 WL 1743154 (N.D. Ca. May 2, 2016), in which the court excluded an expert’s disgorgement analyses based on non-infringing alternatives, with a narrow exception not relevant here.³ The expert, Dr. Leonard, performed multiple apportionment analyses. In four “bottom-up analyses,” Leonard “directly measured the profits contributed by the other factors.” *Id.* at 1. The copyright owner contended the copyrighted work contributed to Google’s profits by providing functions in a way that was familiar to Java programmers, leading to an increased number of apps on the Android platform, an increased number of users, and consequently, increased revenue. *Id.* So Google’s expert evaluated four scenarios, each of which “involved Google’s counterfactual substitution of a non-infringing alternative to the declaring code and SSO at issue.” *Id.* at 1. One such analysis assumed Google could have used an open-source implementation of components of the Java platform, while others were premised on Google’s launching Android with an unfamiliar

³ Google was permitted to offer evidence of the availability and viability of an open-source implementation of various components of the Java platform, which included the at-issue works, as to plaintiff’s claim for “profits it would have received absent infringement under Section 504(b),” *i.e.*, actual damages. *Id.* at *7.

programming in lieu of Java and, e.g., paying to train developers to use it. *Id.* at *2. Oracle sought to exclude Dr. Leonard’s testimony as to “non-infringing alternatives” in his disgorgement analysis.

As the court observed, the purpose of disgorgement is “to prevent the infringer from unfairly benefiting from a wrongful act.” *Id.* at * 3 (quoting H.R. Rep. 94-1476, § 504 at 161 (1976)). Disgorgement discourages infringement “and encourages the would-be infringer to transact with the copyright owner rather than ‘steal’ the copyrighted work.” *Id.* (citation and punctuation omitted). There must, however, be some “reasonable approximation of apportionment of infringer’s profits” to avoid an unjustly large recovery to the plaintiff. *Id.* (quoting *Cream Records, Inc. v. Jos. Schlitz Brewing Co.*, 754 F.2d 826, 829 (9th Cir. 1985)).

The court reasoned:

Although apportionment only requires a reasonable approximation, any reasonable approximation **must be based on a methodology that is tied to the goal of estimating the profits that Google actually earned due to its use of the allegedly infringement elements** of Android. “Apportionment” based on non-infringing alternatives would allow an infringer to reduce his disgorgement to nothing more than the cost of a license, a fundamental contradiction to what Section 504(b) has in mind.

The idea behind Section 504(b) is to hand over to the copyright owner the actual profits made by the infringer using his copyrighted work. If a copyright infringer could avoid disgorgement by claiming he could have substituted some non-infringing alternative, the infringer would rarely be discouraged from infringing and the purpose of the disgorgement remedy would be eviscerated.

Id. at *3-4. By analyzing the cost of non-infringing alternatives, the expert did not perform “a reasonable approximation of Google’s apportioned profits.” *Id.* at *4. Rather, “he approximated the *costs avoided* by the infringement.” *Id.* The court held: “The disgorgement analysis must focus on the factual relationship between the infringing elements and the profits at issue without regard to whether some substitute could, in theory, have had the same effect at a greater cost.” *Id.* at *7.

The reasoning of *Oracle America* is highly persuasive in light of its factual similarities to the instant case. In contrast, the cases *Extreme* cites are markedly distinguishable. In *ECIMOS, LLC v. Carrier Corporation*, 971 F.3d 616 (6th Cir. 2020), the Sixth Circuit never addressed “non-infringing alternatives.” The plaintiff in *ECIMOS* produced a quality-control system that tested completed HVAC units at the end of manufacturer/defendant Carrier’s assembly line. *Id.* at 622. The dispute involved Carrier’s alleged infringement of *ECIMOS*’s copyright in its database-script source code, a part of the *ECIMOS* software that stored test results. *Id.* *ECIMOS*’s system consisted of both a software program and associated hardware. *Id.* at 623.

A jury found Carrier liable for copyright infringement and awarded actual damages and \$5 million in disgorgement damages. *Id.* at 625. On appeal Carrier challenged, *inter alia*, the sufficiency of the evidence to support the disgorgement award. The court found there was “ample evidence” from which a jury could have concluded that the system as a whole “was an integral part of Carrier’s quality-control operations, and that any inability to use the system would have resulted in decreased profits” for Carrier. *Id.* at 637. For example, a Carrier representative testified that without the *ECIMOS* system, the plant would have to shut down until Carrier could find an alternative way to test the product.

Carrier argued on appeal that it could have manually performed its quality-control tests as it had in the past. The Sixth Circuit found this assertion to be implausible in light of the changes in technology and the company’s growth since manual testing had been used. *Id.* There was also no guarantee that any alternative could have been implemented quickly. In fact, the jury heard evidence that an alternative system took 13 months to develop. Manual testing, meanwhile, would have dramatically slowed the manufacturing process. The jury also heard evidence that the infringed-upon database code was an “integral part” of the quality control system. “[A]lthough it

is unlikely that the database code would have been responsible for the *entirety* of Carrier's profits," the \$5 million jury award reflected only 2.2% of Carrier's profits from the plant or 0.4% of Carrier's revenues.

The jury in *ECIMOS* clearly heard evidence that an alternative system took over a year to develop, as well as evidence that without a quality-control system, manual testing would have dramatically reduced the infringer's profits. But this does not lend as much support to Extreme's position as it contends. Neither party in *ECIMOS* challenged the submission of this evidence to the jury. The Defendant instead challenged the sufficiency of the evidence to support the disgorgement award. So the Sixth Circuit did not squarely address the relevance of non-infringing alternatives to disgorgement.

There is, moreover, a material difference between calculating the cost of a non-infringing replacement and determining the contribution of infringing elements to an infringer's profits. *ECIMOS* focused on the contribution of the copyrighted elements to the infringer's operations, and thus, to its profits. *ECIMOS* does not mention the cost of a non-infringing alternative, or use that terminology at all. Rather, the Sixth Circuit cited the delay associated with either replacing the system and or removing the infringing element as evidence the jury could have considered in evaluating the contribution of the copyrighted database code to the infringer's profits.

Bonner v. Dawson, 404 F.3d 290 (4th Cir. 2005), does not speak to non-infringing alternatives either. There, an architect sued a builder for infringement of his copyright in the design of a building, specifically the façade. The jury awarded actual damages, but no disgorgement. As the court explained in *Oracle America*, *Bonner* did not calculate damages based on a counterfactual scenario in which the infringer used a non-infringing alternative. *See Oracle*, 2016 WL 1743154 at *7. Rather, the lessee of the building testified it would have wanted the building constructed and

would have signed the lease even if a different (non-infringing) façade were used. *See id.* In other words, “the infringing element *in fact* had no bearing on the profits.” *Id.* The defendants in *Bonner* submitted “a great deal of evidence to the jury” that could have lead them to believe that profits were “attributable to factors other than the copyrighted work.” *Bonner*, 404 F.3d at 295. As in *ECIMOS*, the question in *Bonner* was not how much a non-infringing alternative would have cost the infringer, but, consistent with the text of § 504(b), how much of the infringers profits where actually attributable to infringement. The jury thought that amount was \$0, and the Fourth Circuit did not disturb this finding.

Similarly, the court in *Premier Dealer Services, Inc. v. Allegiance Administrators, LLC*, permitted evidence that the copyrighted material included “boilerplate language, common in the industry.” Case No. 2:18-cv-735, 2022 WL 1604739, at *4 (S.D. Ohio May 20, 2022). The plaintiff claimed that the defendants wrongfully used a form it created and held a copyright in. Evidence that the form was “substantially similar to other forms [was] relevant to show how much of [defendant’s] revenue” from administering the contracts “was due to the language” of the specific certificate. *Id.* The court held that the defendant was “entitled to present evidence that all certificates in the industry are similar and therefore its profit was not heavily reliant on the language of the Certificate.” *Id.* While short on facts⁴ and context, it is nonetheless clear that the court did not authorize infringing parties to submit evidence of the cost of non-infringing alternatives in connection with a disgorgement analysis. Rather, the focus was again on what portion of the infringer’s profits were reasonably attributable to infringement.

Greenspun’s replacement cost analysis does not serve a similar purpose. In *Extreme*’s words, Greenspun offers “an analysis of the cost of replicating Plaintiffs’ software as one of a

⁴ The opinion only dealt with motions in limine, so it referred to a prior dispositive motion order for the full factual background.

number of methods of considering the value of that software.” [Doc. 558 at 27]. But as the *Oracle* court explained, “[t]he disgorgement analysis must focus on the factual relationship between the infringing elements and the profits at issue without regard to whether some substitute could, in theory, have had the same effect at a greater cost.” *Id.* at *7. *See* 17 U.S.C. § 504(b). Disgorgement allows the copyright owner to recover profits attributable to infringement, less elements of profit that the infringer can show are attributable to factors other than the copyrighted work. Extreme has not explained how Greenspun’s replacement cost analysis fits this statutory framework.

Finally, *AMO Development, LLC v. Alcon Vision, LLC*, Civ. Act. No. 20-842-CFC, 2023 WL 22104, (Jan. 3, 2023), related to actual damages, not disgorgement. The court refused to exclude evidence regarding non-infringing alternatives related to “plaintiff’s claim for the profits it would have received absent infringement under Section 504(b).” *Id.* (cleaned up) (*quoting Oracle*, 2016 WL 1743154 at *7). Plaintiffs here have represented that “this is not a . . . lost profits case, but rather a copyright *disgorgement* case.” [Doc. 580-1 at 15]; [Doc. 619 at 4] (arguing non-infringing alternatives are proscribed “in the face of copyright profits *disgorgement*, which is what Plaintiffs are seeking here.”). So *AMO Development* is inapplicable.

Accordingly, Greenspun’s replacement cost analysis will be excluded on the issue of disgorgement. The Court understands there may be some dispute as to whether Plaintiffs are now seeking actual damages. Plaintiffs’ motion to exclude Greenspun’s replacement cost analysis rests entirely on their argument that non-infringing alternatives are irrelevant to *disgorgement*, so the Court makes no finding as to whether his opinions could be offered in some other capacity.

d. “Zero” Value Opinion

Next, Plaintiffs seek exclusion of Dr. Greenspun’s opinion that “the value of Plaintiff’s copyrighted works in Extreme’s switches is zero because users of Extreme’s switches do not care

what implementation of SNMP is inside Extreme's switches as long as the switch adheres to the SNMP protocol." [Doc. 491-3 at ¶ 308]. Plaintiffs complain that Greenspun's opinion on this point is not supported with citation to facts or authority. [Doc. 552 at 26]. They further argue that even if the value of Plaintiffs' copyrighted software is derived almost entirely from the SNMP protocol, that would not be a legally appropriate basis to apportion disgorgement. [*Id.*]. According to Plaintiffs, apportionment is not concerned with creative vs. non-creative elements of a copyright owner's work, but with infringing vs. non-infringing features. [*Id.* at 26-27].

Plaintiffs' motion will be denied in this regard. Extreme is entitled to present evidence that its profits were attributable to factors other than infringement. Courts recognize "two avenues of attack" for a defendant seeking to show that some portion of its profits were not attributable to infringement. 5 Nimmer on Copyright § 14.03 (2024) (quoting *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147, 1171, 1175 (1st Cir. 1994)). First, a defendant "can attempt to show that consumers would have purchased its product even without the infringing element." *Id.* Or it can show "that the existence and amount of its profits are not the natural and probable consequences of the infringement alone, but are also the result of other factors which either add intrinsic value to the product or have independent promotional value." *Id.*

Courts have therefore allowed evidence about the impact of the infringing material on the commercial desirability of or demand for a product in the disgorgement context. Indeed, while Extreme's cited case law is not persuasive as to its replacement costs argument, much of that same body of law is readily applicable to Greenspun's "zero value" opinion. Courts have allowed, for example, evidence that a copyrighted form was substantially similar to that used industry-wide, and thus may have contributed little to the infringer's profits. *Premier*, 2022 WL 1604739, at *4. The court in *Bonner* similarly admitted evidence that the lessee of a building was concerned with

the interior and would have leased the building with or without the infringing façade. 404 F.3d 290. In *Sermedjian v. McDougal Littell*, 641 F. Supp. 2d 233 (S.D.N.Y. 2009), the court allowed an expert to testify that copyrighted images were unlikely to increase demand for a textbook, given how many substitute images were available. Greenspun’s opinion about the value of Plaintiffs’ software to Extreme’s customers is in line with these cases.

The Court also disagrees that Greenspun’s “zero value” opinion is so wholly lacking in foundation as Plaintiffs suggest. After extensive review of the software, hardware, and Extreme products at issue, Greenspun attempts to quantify the value attributable to Plaintiff’s copyrighted works in Extreme’s switches. [Doc. 491-3 at 126]. He explains that networking products “are required to implement hundreds of protocols and standards related to networking so that the switch is interoperable in the network and can communicate with other devices on the network that likewise adhere to the same or similar protocols and standards.” [*Id.* at ¶ 306]. This, Greenspun believes, is what users of switches care about, not the specific SNMP implementation in the switch. His expertise and review of the relevant switches provide a sufficient basis for this opinion. If Plaintiffs believe his supporting evidence to be weak, they can challenge that on cross-examination.

Next, the Court rejects Plaintiffs’ suggestion that Greenspun’s “zero value” opinion is somehow inconsistent with the Sixth Circuit’s observation that the plaintiff does not have a “stringent burden” of proving a causal connection. An expert’s testimony does not change the burden-shifting framework of the disgorgement analysis. Extreme is entitled to present evidence that its profits are attributable to factors other than the infringing material. Offering expert testimony that Plaintiffs’ software did not contribute significantly to Extreme’s profits because

customers are not concerned with any specific implementation of the SNMP standard is one way Extreme might attempt this.

Finally, Plaintiffs say that Greenspun cannot opine that the value of their software is derived almost entirely from the SNMP protocol, because even if that were true, it is not a legally appropriate disgorgement analysis. Plaintiffs urge that “[t]he apportionment that the law permits is not between the creative and derived features of the plaintiff’s work, but between the infringing and noninfringing features of defendant’s work.” [Doc. 552 at 26] (quoting *Bucklew v. Hawkins*, 329 F.3d 923, 932 (7th Cir. 2003)).

Initially, the challenged portion of Greenspun’s report does not state that “the value of Plaintiffs’ copyrighted software is derived almost entirely from the SNMP protocol alone,” [Doc. 552 at 26], though Greenspun gave deposition testimony to that effect. There is, however, some analytical overlap between the contention that Plaintiffs’ software lacks creativity in view of the SNMP protocol and the contention that consumers do not care what implementation of SNMP is in a product. But Extreme has appropriately withdrawn Greenspun’s opinions regarding copyright liability issues [Doc. 649], and Greenspun testified that he did not conduct a creativity analysis anyway. Provided Greenspun’s “zero value” opinion does not cross the line into a creativity analysis, this analytical overlap is not a basis for exclusion.

e. Line-Counting Analysis

Plaintiffs next challenge Greenspun’s line-counting analyses and the conclusions he drew from them. Greenspun used a line-counting tool called CLOC to analyze the total number of code lines in certain Extreme software as compared to the code lines attributable to Plaintiffs. In the simplest terms, he counted the total code lines in, e.g., the EXOS software, counted the total code

lines attributable to Plaintiffs in the same software, and then divided the first number by the second to conclude that Plaintiffs' code constitutes 0.2% of the total code in the EXOS software.

The problem, according to Plaintiffs, is that Greenspun provided a clear breakdown of which file types were included in calculating the total lines of code, but provided no similar breakdown of which file types were used to calculate the code lines attributable to Plaintiffs. Plaintiffs say he also counted dead code and third-party code in calculating the denominator (total code lines in Extreme products). While Plaintiffs argue that he did not count the same types of files in calculating the numerator (Plaintiffs' lines of code), that opinion comes from Plaintiffs' expert. For his part, Greenspun testified there was no reason to provide a separate breakdown or methodology since it was "all in one directory." [Doc. 489-9 at 56].

Extreme counters that Plaintiffs have misinterpreted Greenspun's testimony and his report. [Doc. 558 at 29]. Greenspun testified that he did not exclude any file types from his analysis of Plaintiffs' code that were counted by CLOC for the software as a whole: "I tried to make sure that the input to CLOC was the same for the overall code base and for the SNMP Research subcomponent." [Doc. 489-9 at 67]. Greenspun also explained that "since there's dead code in both the numerator and the denominator and almost every system has dead code, it wouldn't have made sense to discuss it or try to eliminate it from one side or the other." [*Id.* at 51].

Plaintiffs' challenge is really to Greenspun's conclusions and his credibility; it is no basis for exclusion of his opinions under Rule 702. Greenspun offered reasoned bases for his decisions and Plaintiffs can challenge those reasons on cross-examination and present competing testimony from their own expert. *See Universal Surveillance Corp. v. Checkpoint Sys., Inc.*, No. 5:11-CV-1755, 2015 WL 6082122, at * 19 (N.D. Ohio Sept. 30, 2015) (denying *Daubert* motion where expert "provided reasoned explanations for the assumptions that he made and viable arguments to

support his data set choices” (cleaned up)). The purported inconsistencies in Greenspun’s application of the line-counting methodology go to the weight of the evidence and his credibility, not to the reliability of his opinions or methodology.

IV. CONCLUSION

Accordingly, Plaintiffs’ Motion to Exclude Testimony of Phillip Greenspun [Doc. 461] is **GRANTED IN PART** as to Dr. Greenspun’s opinions regarding replacement cost of Plaintiffs’ software, which will be **EXCLUDED** as to disgorgement damages. The remainder of Plaintiffs’ Motion [Doc. 461] is **DENIED**.

SO ORDERED.

/s/ Charles E. Atchley, Jr.

CHARLES E. ATCHLEY, JR.

UNITED STATES DISTRICT JUDGE